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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,200	03/04/2005	Mitsuo Tanaka	Q83917	6449
23373	7590	01/19/2007	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			VO, ANH T N	
			ART UNIT	PAPER NUMBER
			2861	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/19/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/510,200	TANAKA, MITSUO	
	Examiner	Art Unit	
	Anh T.N. Vo	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 30 September 2004.
- 2a) This action is FINAL.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 7-10 is/are allowed.
- 6) Claim(s) 1,5,6,11,13,14 and 16 is/are rejected.
- 7) Claim(s) 2-4,12 and 15 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 09/30/2004.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

Acknowledgement is made of the receipt of Preliminary Amendment filed 30 September 2004.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The references cited on PTO 1449 have been considered.

### ***Drawings Object to***

The drawings are objected to in that the reference numbers " 22c" and "26a" as mentioned on line 8 of page 7 and on line 10 of page 7 respectively in the specification are not shown in Figure 3. Correction is required.

### ***Claim Objection***

Claims 3, 7, 12 and 15 are objected to because of the following informalities:

\* Claim 3 recites the language "if the acquisition means acquires information from a memory element ". This language is ambiguous, as it is unclear as to what happen if the acquisition means does not acquire information from the memory element. This language should be amended to positively recite that the acquisition means acquires information from a memory element

\* In claim 7, 12 and 15, the word 'it" should be deleted, as the term "it" is indefinite.

Appropriate correction is required.

***CLAIM REJECTIONS***

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 6, 11, 13, 14 and 16 are rejected under 35 USC 102 (a) as being anticipated by Yanagida (JP Pat. 2002-052738).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Yanagida discloses in Figures 1-12 an ink jet printer comprising:

- a liquid container (51) having a memory element (511) which stores information about retained liquid (Fig. 1);
- a carriage (121) mounting said liquid container (51) and having a liquid injection head (1211) which injects said liquid (Fig. 1);
- moving means (not shown) which moves said carriage (121) (Fig. 1');
- a replacement liquid container (61) for replacing the liquid container (51) mounted on said carriage (121), the replacement liquid container (61) having a memory element (611) which stores information about retained liquid;
- acquisition means (113) that acquires information stored in said memory element (611) of the replacement liquid container (61);

- decision means (111) which determines whether or not to replace said liquid container (51) mounted on said carriage (121) with said replacement liquid container (61), based on the information acquired by said acquisition means (113);
- control means (112, 122) which controls said moving means in such a way as to move said carriage (121) to a replacement position from a standby position (close by the element 122) in the case where said decision means (111) has decided that replacement with said replacement liquid container (61) should be done; and
- display control means (114) for displaying on a display device (131) information stored in the memory element (611) in said replacement liquid container (61), acquired by said acquisition means (113) (Fig. 1).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 USC 103 (a) as being unpatentable over Yanagida (JP Pat. 2002-052738) in view of Tanaka et al. (JP Pat. 10-286976).

Yanagida discloses the basic features of the claimed invention was stated above but does not disclose operation means which is operated to drive said moving means arbitrarily to move said carriage to said replacement position and said standby position regardless of a decision by said decision means.

Tanaka et al. disclose in Figures 1-2 and 5 an ink jet recorder comprising operation means (11) which is operated to drive said moving means (8, 12a, 12b, 13) arbitrarily to move said

carriage (6) to said replacement position and said standby position regardless of a decision by said decision means (101).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Yanagida in the Tanaka et al. ink jet recorder for the purpose of selectively exchanging an ink tank from opening section of a cover of the ink jet recorder.

***Citation of Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These prior art references (US Pat. 5, 049,898; US Pat. 6,585,298; US Pat. 6,585,345; US Pat. 6,938,976) cited in the PTO 892 form show an ink jet printer, which is deemed to be relevant to the present invention. These references should be reviewed.

***Allowable Subject Matter***

Claims 2, 12 and 15 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. This claim would be allowable because the prior art references of record fail to suggest a liquid injection apparatus comprising a color and remaining amount of liquid that is retained in the corresponding liquid containers are stored as the information in each memory element of the liquid container, acquisition means acquires the information stored in the memory element of the liquid container mounted on a carriage, and decision means decides that the liquid container should be replaced with the replacement liquid container in the case where the remaining amount of the liquid in the replacement liquid container is larger than a remaining amount of the liquid in the liquid container which is mounted on said carriage and retains a liquid of the same color as that of the liquid in said replacement liquid container in the combination as claimed.

Claim 3 would be allowable if rewritten to include all of the limitations of the base claim

and any intervening claims. This claim would be allowable because the prior art references of record fail to suggest a liquid injection apparatus comprising a plurality of liquid containers that are mounted on a carriage, and when one of liquid containers mounted on the carriage has been replaced with a replacement liquid container, if acquisition means acquires information from a memory element provided in another replacement liquid container while the carriage is at the replacement position, control means controls moving means to replace with the another replacement liquid container one of the liquid containers on the carriage that retains a liquid of the same color as the liquid in said another replacement liquid container in the combination as claimed.

Claim 4 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. This claim would be allowable because the prior art references of record fail to suggest a liquid injection apparatus comprising acquisition means that has not acquired information from a memory element provided in another replacement liquid container after a predetermined time has passed since replacement of the liquid container on carriage with the replacement liquid container at the replacement position, control means controls moving means in such a way as to move the liquid carriage at the replacement position to a standby position in the combination as claimed.

Claims 7-10 are allowable. These claims would be allowable because the prior art references of record fail to suggest a liquid injection apparatus comprising a first communication section that is connected to a memory element of a liquid container and information acquisition means having a second communication section communicatable in a non-contact manner, wherein the information acquisition means is provided at a portion of a cover portion of a housing that faces said first communication section in the combination as claimed.

***CONCLUSION***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:00 P.M.. The fax number of this Group 2861 is (571) 273-8300



ANH T. N. VO  
PRIMARY EXAMINER  
January 11, 2006